

SEP 10 2007

Appl. No. 10/822,368
Amdt. dated September 10, 2007
Reply to Office Action of June 20, 2007

PATENT**REMARKS/ARGUMENTS**

In the Office Action mailed June 20, 2007, the Specification was objected to for an informality and the claims were rejected under 35 U.S.C. 112, second paragraph. In addition, Claims 1, 2 and 5 were rejected under 35 U.S.C. 102(b) over U.S. Patent Application Publication No. 2003/0022583 to *Thomas*, and Claims 11-13, 19 and 20 were rejected under 35 U.S.C. 103(a) over *Thomas*. Finally, Claims 3-4, 6-10, 14-18 and 21 were rejected under 35 U.S.C. 103(a) over *Thomas* in view of U.S. Patent No. 5,837,620 to *Kajander*.

The Amendment specifies that in Claim 1 one of the components of the fibrous non-woven mat is glass fiber, and in Claim 11 the mat production design is for producing the fibrous non-woven mat comprising glass fiber. In addition, the Amendment replaces the word "properties" with "characteristics" in Claims 1 and 21 and also changes the term "empirical data" to "empirical performance data" in Claim 1. The Amendment also clarifies that the production values are "one or more of the production component values" in Claims 11, and 13-15. No new matter is believed added by the Amendment, and Claims 1-21 are pending in the Application. Reconsideration and withdrawal of the objection and rejections is respectfully requested in light of the Amendment and the following remarks.

A. Specification

The Amendment corrects the typographical error on page 8, line 4 of the Specification. In view of the Amendment, withdrawal of the objection to the Specification is respectfully requested.

B. The Rejection under 112, second paragraph Is Addressed.

The rejection of the claims under § 112, 2nd Paragraph is made moot by the Amendment. Claims 1 and 21 have been amended to replace "the selected physical properties" at lines 5-6 with the selected physical characteristics, to provide proper antecedent basis for this element. Claim 11 has been amended to clarify that the one or more production values at line 7 is referring to "one or more production component values."

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The Office Action also commented on the relationship between the steps of selecting physical characteristics for at least some of the components to be included in the mat and selecting components of the mat based on the calculated performance characteristics in Claims 1 and 21. The Applicants note that selecting *physical characteristics* to be studied for a component (*e.g.*, fiber length) does not mean that the component itself (*e.g.*, a fiber of a specific length) has been selected. Thus, the components of the mat may not already be known when they are selected based on the calculated performance characteristics. In view of all of the above, withdrawal of the rejection of the claims under § 112, 2nd paragraph, is respectfully requested.

C. The Rejection under 102(b) Is Addressed.

The rejection of Claims 1, 2 and 5 under § 102(b) over *Thomas* is made moot by the amendment to Claim 1, which notes that one of the components of the fibrous non-woven mat is glass fiber. In contrast, *Thomas* describes ballistic resistant materials made from Kevlar (a polyaramid polymer fiber) or Spectra (a high-density polyethylene fiber). See *Thomas* p. 5, paragraph [0082]. Because the reference does not describe or suggest that ballistic resistant materials include glass fibers, withdrawal of the rejection of claims 1, 2 and 5 under § 102(b) over *Thomas* is respectfully requested.

D. The Rejections under 103(a) Are Addressed.

The rejection of Claims 11-13, 19 and 20 under § 103(a) over *Thomas* is made moot by the Amendment to Claim 11, which specifies that the mat production design is for producing the fibrous non-woven mat comprising glass fiber. As noted above, the studies on ballistic resistant polymer fibers in *Thomas* neither describes nor suggests that glass fibers be used in the ballistic resistant materials of the invention. In fact, substituting those high-strength fibers for glass fibers would render those materials unsatisfactory for their intended purpose. See MPEP § 2143.01, Part V, which notes that if a "proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." Accordingly, withdrawal of the rejection is respectfully requested.

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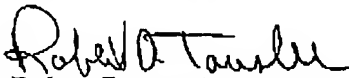
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The rejection of Claims 3-4, 6-10, 14-18 and 21 under § 103(a) over *Thomas* in view of *Kajander* is respectfully traversed for a similar reason. Claims 1, 11, and 21 (and the claims that depend from them) all include glass fibers as a component of a fibrous non-woven mat. There is no suggestion or motivation to substitute the glass fibers described in *Kajander* with high-strength, ballistic resistant fibers used in *Thomas*, because such a substitution would render the invention in *Thomas* unsatisfactory for its intended purpose of stopping bullets. Accordingly, withdrawal of this rejection of claim 3-4, and 6-10 (which depend from Claim 1), Claims 14-18 (which depend from Claim 11) and Claim 21 under § 103(a) over *Thomas* in view of *Kajander* is respectfully requested.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Respectfully submitted,


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